

1/6

POLYMORPHISMS IN THE FCER1A GENE

AAACAGAAGA	ATTAGTAAAG	GAATCCTGGA	GAAAGCCCCT	GCTGTGTATT	
TAAAGGAGAA	AGGGAGATCA	TGTTGGGAAA	TTATAATATT	AAAAGTAAAC	100
AAAAGCTAGG	AAGTAAATA	AAATAAATTA	TATGGCCTAG	ATCCCCATAA	
GTAATGGTTT	AACCTCTGCC	TTCCTGTGTT	CTGAGCCAGA	TTAGGGCACA	200
GTAGAGAAAG	AGGAGTCTCT	GAAAATGTTT	CCAATTTTCG	TGGTCAGACA	
GCGGATCATC	AGTGAATCAG	ATGAAAATTT	GTGGATTTAT	GCACTAACTG	300
ATCAGCAGGA	AATTAAACAA	GAAAAGCGTT	GCTAGCTCTG	GTGAATCCCA	
AAAGAATTTG	GCAGTTGCTA	GCCATGCTCC	TGAATATGTA	TAAACAGTAC	400
ATCATATGAC	TAAGAGTTTG	ACTTAGGGGT	TAGATTTTAT	GTGTTTGAAC	
CCCAAATTAG	TTATTTAATA	GTTGGCACCC	CAAAACAAGT	TACTTAACCT	500
CACTAAGATT	CAGTTTTTCT	GTTTATAAAA	TGTAGATAGT	GATAGTATGT	
ACTTTATAGG	ATTATTGTGA	AAAATAAATG	AAATATCAGA	TTTATTTAGG	600
G					
ATAACACCTG	GCATATGTTT	GGTATTCAGT	AATTAGTTGC	TGCTGTTTTA	
TTCTGCTCTC	CCTTGCATCC	CACTTTTCTA	AGTTGTAAAC	TAAATAGTTG	700
C					
TACACAGATT	GACAGATTAA	GAAAGGCTTG	TGATTGTGCT	AGACCTATGC	
CTCTCTCTCA	CCAGATTCCA	GGTGTATATG	TGGAGGTGGG	ATAGGGAGTG	800
GAGTAAGTGG	GTAAATATTA	AATTGCCCCAG	TTGGGCACCA	TCCTGAATAT	
TATCTCTAAA	GAAAGAAGCA	AAACCAGGCA	CAGCTGATGG	GTAAACCAGA	900
TATGATACAG	AAAACATTTT	CTTCTGCTTT	TTGGTTTTAA	GCCTATATTT	
C T					
GAAGCCTTAG	ATCTCTCCAG	CACAGTAAGC	ACCAGGAGTC	CATGAAGAAG	1000
ATGGCTCCTG	CCATGGAATC	CCCTACTCTA	CTGTGTGTAG	CCTTACTGTT	
[exon 2: 1001..					
CTTCGGTAAG	TAGAGATTCA	ATTACCCCTC	CCAGGGAGGC	CCAAATGAAT	1100
A					
..1055]					
TTGGGGAGCA	GCTGGGGTAG	GAACCTTTAC	TGTGGGTGGT	GACTTTTTCT	
AGGACATGTG	CAAACCTATT	GGCATTTCCC	AGGGACTCTG	TAGTGGAGCC	1200
AAGCTAGAAA	GCAGAGGCAA	GTGGGCTGAG	CAACACCTAA	GGAGGAAGCC	
AGACTGAAAG	CTTGGTTCCT	TGCATTTGCT	CTGGCATCTT	CCAGAGTGCA	1300
AATTTCTTAC	CAAGGTAATG	AGGGTAGAGG	AGAGAAAAGAA	GCTCTTTCTT	
CCCCTGATTG	TCATTCCCTGA	AAAGACGGTT	GGTCCCTTAA	ATTCCATGGA	1400
TGTAGATCTT	ATCCCCACAC	CCAGATTCTA	GTCTCTTGGA	GATAAAGAAG	
ACTGCTGGAC	ACTAATGTAT	CCTCTCTGGA	CTTTTGCAGC	TCCAGATGGC	1500
C A					
[exon 3: 1490..					
GTGTTAGCAG	GTGAGTCCTC	TGTTCTTGTT	CCCTTGGTGT	ATCAACATGT	
..1510]					
CTGGGCATTG	CTTTCCTCTC	ACTATTTTCT	TCGTCCCATC	ACTTCTGCTT	1600
TCTAATGAGC	ATGAATCTGT	TCCTTGGCCA	GACTACTTTC	CCTCTCCACC	
T					
TTGCCCTTGC	TTTCTTTTTT	TCCCTGATTG	ATTGCATTCT	CTCAAGTCAT	1700
TCTCTCCTCT	GTTTTAGTCA	ATAACCATGT	CTGTTGCACA	TATACATGTC	
TCATTCTCTC	TCCTAGACAC	TTTGGCATGA	TCTCGCTCAA	TAATTACATT	1800
ATTATTATTA	TTGCCATTTT	ATAATTGAGG	ATGCTGAAAC	TCAGTGATTT	
TCTGGTGGTT	ACATGGCTAA	GGAAGTGGAT	TTCAACGTAA	GTTTCTTGGA	1900
TCTAAGTCCA	GTTCTCTTCT	GACTATATCA	CCCTTTTGTT	ATCACCATGT	
ATCTACTTCT	TTGGTCTCTG	TTCAAATTTG	CACTACATCC	CCTTGTTCCA	2000
GGAAGCCATT	CAAGACTGAC	TTTCTTAGTG	CCTCTCACTA	CTTTCTGGAA	

FIGURE 1A

2/6

CTGACATATG	TTTTTCACTC	TGTATATACT	TACAATTAAA	TAGTCATAAA	2100
TATTCAGAGC	TTGGAGAAAC	CTTATATTTT	ATCCAGTCCA	GTAAATTTAT	
CCATCCATAA	TTCACCTCATT	CATTACACATA	ATAAAATATTT	AATGTAACAA	2200
TGGTTGAACA	TGGCAGACAG	TGTTTCTACC	TCAAAAGAGA	TTGCAGTCCT	
CATTTACAGA	TACTGAATTG	AAATTAACAG	AAGTAGAGTG	AGTCAGCTCA	2300
AATCACATAG	TGAATTGGTT	TCTTTGTTTT	TAAATCTCCT	GCATATGTGT	
CCTGTCTTTC	TCCCTGTGTT	GGGCGTTCCC	TGGGGCACCA	ATACTAATTT	2400
CTCCTTCCCC	TAGAAATCAA	AACAGGGTCT	TATCACCAAC	AGAATAAGGA	
	G				
CAGGTTGACC	ACTGATTGTC	AGAATATTGC	TTCGTTTGTA	CTTTTAAGCC	2500
TAGACAGTTT	TCAATGACTT	TTTTTCTCTC	TACATGTCTT	TTCATATTTT	
TATCTTCTTG	AAGTCCCTCA	GAAACCTAAG	GTCTCCTTGA	ACCTTCCATG	2600
	[exon 4: 2564..				
GAATAGAATA	TTTAAAGGAG	AGAATGTGAC	TCTTACATGT	AATGGGAACA	
ATTTCTTTGA	AGTCAGTTCC	ACCAAATGGT	TCCACAATGG	CAGCCTTTCA	2700
GAAGAGACAA	ATTCAAGTTT	GAATATTGTG	AATGCCAAAT	TTGAAGACAG	
	G				
TGGAGAATAC	AAATGTCAGC	ACCAACAAGT	TAATGAGAGT	GAACCTGTGT	2800
	A				
ACCTGGAAGT	CTTCAGTGGT	AAGTTCCAGG	GATATGGAAA	TACAGATCTC	
	..2818]				
TCATGTGAGG	GATGGCTCAT	CTGAAGATGG	GAAAAAACAG	GTTATTCCAA	2900
GGGTTAGGAC	ACCAGAGTGG	GATTCAAGGC	CTCTCATTTT	TAAGACCCCT	
	C				
GCATTGGCTG	GGCACAGTGG	CTCACGCCTG	TAATCCCAGC	ACTTTGGGAG	3000
	A				
GCTGAGGCAG	GTGGATCACG	AGGTCAGGAG	ATCGAGACCA	TCCGGCTAAC	
	A				
ATGGTGAAAC	CCCATCTCTG	CTAAAAAATA	TATATATATA	AAATTAGCCG	3100
GGCGTAGTGG	TGGGCACCTG	TAGTCCCAGG	TACTCGGGAG	GCTGAGGCAG	
GAGAATGGTG	TGAACCCAGG	AGGTGGAGGT	TGCAGTGAGC	TGAGATCACG	3200
CCACTGCCCT	CCAGCCTGGG	CTACAGAGCA	AGACTCCGTC	TCAAAAAATA	
AATAAATAAA	TAAAAAAGAC	CCCTGCATCT	CTTTTCTTCT	ACCCCTTCC	3300
CTTTTGATTA	CTTGTATGCC	TTCTTTCAAT	ATTCTAGTCA	TCTCTCAATA	
TTATTCCCTCC	ACCCTATTTT	CCTCTATCTT	TTCTGCCTAG	ATTCAGGTAT	3400
ATATTATGTG	GTCAAACAGC	ATGACATATA	TGTGAACATT	TCAAAGAGCT	
GTGTATCTGG	AATAGGATCA	AAAGGTTTGA	CTTAAAGTTT	TGCTCTGCAT	3500
AATCCATATG	GCAGGACCTG	AATATTAGGT	TGTACTCTTC	GTTATGAAAC	
ATATCTGGGT	ACATTTCTCT	ATGTCCTCTG	TTGTTACTTA	AGAACACATA	3600
TTTCATGCTT	GTTTCATTTT	TATCACTCCT	ACTGCCAACA	AATAGCATAG	
CATGCTTAGG	CACATGTGGC	TTAATTAGCA	AATGTTGAAT	AAACAAATTA	3700
ATGATTTTGA	ATAGTGACCA	ATAGGTCTCT	TTTATACTCT	ATATTTTCT	
CTTGAGTGAA	AAAAAATGTT	TCAACCTCCA	TATGTAAATT	CCAAACACAA	3800
ACTAAAGCAA	TGTAGAATAG	CTTCTTTTAT	CCCTGGAGTA	GTTTCTAGAG	
AAGTCCTAAA	GGATTGGTCC	TAAATTAATT	ATGCTTATTA	TGCTAGCGAT	3900
ATTTCTTTTC	AAAATTCTCC	TTTAATGAAT	GCTTTTAAAT	TTTTACAAAA	
GCATTAACCA	TAGAATGTGA	TTCTTGCTCT	TCACTGACTC	ATTAGTGACA	4000
AATATTTGTT	GAGTACCTAC	CAACTCCTAA	GTATTGCTAC	CAACTCCTAA	
ATACTGTGTT	GGGCATTACG	AATAGAATGT	AGAAGTAGAC	AGGGTCCCTG	4100
ACTTCTTGGA	GCACAGAGCA	GTATGGGAAG	AGGACATTAA	ATAAAGAATT	
ACATAAGTAA	TTAATTTAAA	TTATACATGT	TTTGAAGAAG	TTTTTTTTTG	4200
ACAACATAAA	TTAACACTAG	AACTGGGAAG	TTTCTATAAG	GTAAGAGAGG	
ACAAAATAGA	CACTCTCCTA	AGCTAAAATT	CCCAAGAAAG	ACTGTTTATT	4300
TTCCCCTAAC	TAAC TAGAAC	TAGCAACAGA	AGATCTGAAA	GGAATTCTGG	

FIGURE 1B

3/6

CTTTCAAGTG	TTCCATGTAT	GGACTCATCA	GGGAGGTCCG	AGAGGCTTTG	4400
TGGCCCCAGA	CTGACTTTTC	AGGAGGGGAA	AGGATTTATC	AATACACAAG	
ACAGGCTCTA	AGCATTATTT	TGTGCCCTTT	AAAAATCCAC	TTTATGAGCC	4500
AAAAAGTGAG	TTAATGATAA	TTCATAGTTT	CTGACACATG	CTCTATGCGT	
GGCTCTCTTT	TCTCTATTCA	TTCTCTCTCT	CTTCATTTAT	TGTTAAATAA	4600
A					
ATAATGTAAT	GAATGTTCTT	CAGACTGGCT	GCTCCTTCAG	GCCTCTGCTG	
[exon 5: 4624..					
AGGTGGTGAT	GGAGGGCCAG	CCCCTCTTCC	TCAGGTGCCA	TGGTTGGAGG	4700
AACTGGGATG	TGTACAAGGT	GATCTATTAT	AAGGATGGTG	AAGCTCTCAA	
GTACTGGTAT	GAGAACCACA	ACATCTCCAT	TACAAATGCC	ACAGTTGAAG	4800
ACAGTGGAAC	CTACTACTGT	ACGGGCAAAG	TGTGGCAGCT	GGACTATGAG	
T					
TCTGAGCCCC	TCAACATTAC	TGTAATAAAA	GGTGAGTTGG	TAAAGGAAAG	4900
..4881]					
GAAAAGCATC	CATAGCAGGG	GAAGGAAGAG	AGAACTTCTG	AGCCTGAGCA	
GTTGCAGCTT	GTAGAAGGGG	GGCACCTGTG	ATACACTGGA	AAGCCTACCA	5000
T					
GACTTGCAAT	GAGGAGACCT	GGGTGATAGT	ATATATCTCA	ATCTCTGTTT	
CAAAGCCTTG	ACTTGTTAAA	TGGTGATAGT	AATACCTGCT	TGCACTATGA	5100
C					
AATTTTTATG	AAGATTAATG	TGGTAATATT	TGTGAAATGA	CTTTGTAAAC	
TGTTAAGCAC	TACCCAAGCA	TAACAGATTG	TGATTACTAT	TTTGATCTCA	5200
AAGTCATCTG	TTGCTCCTGG	GGGAACACTT	ATATTTATCA	AATTGAAAAA	
AAGTTTCAAA	GTTGAATGAA	GAAAGGATAT	AAAGAGCTTG	AGGAGCCCAT	5300
TCCAGCTTAG	GAGGGCTGGG	AAAGGAAACC	AGCAAGTCAG	TAAGCTGTGT	
GCCTGTGTAT	TGAGGGAGGA	GGGAATGGAC	TTGATATGGA	GAGGCTAGGG	5400
AGGTGGACTG	CCTCTATGGC	CTGTAAGAAA	AACTGCTCTC	TCCAAACTCT	
TTATAAGAGA	GGGAGCCTGT	GAAGTATTCA	CTTTTGAAGG	AGAAAGTTAG	5500
ACTTTTCCTT	CACACACTTT	GTACATAATA	ATGTTTAAAA	AAGCATGAGG	
TCAAAATACA	TAATTAAGTC	CTAGCAGTTC	TCTGTTAACT	AATTTGAGAC	5600
TGAAGTGCTA	TGTACTTGTC	TCTAGGCTTC	CAGTATCTTC	ATCTGTAAAA	
CAGAATATTT	GGTCTAGATT	CCATTAGAAT	CATTTGATAA	CTTAAAAAAT	5700
ATATTGATGC	TCATGTCTCA	TTTCTTGAGA	TTCTGATTTA	ATTGGTTTGG	
GGTGCAGCCT	GGGTATACGT	ATTTTTTCATA	GGTCTTTCAC	ATAATGGTAA	5800
TGGGTAGCCA	ATATTGAGAA	TCACTTGTCT	AGGTGATCTT	TAAATGATTT	
CTGGATGTAA	TATTCTGAGG	CTCTATAATT	TGAGACTAAT	CACAAAAATC	5900
GGTACAGTTT	ATAAACAGAC	TAACAGAACC	ACAAAATAAT	AGAATTGGAA	
GGCAATTTAA	CTAGTGCAAT	TTCTTCATTT	TGCCTAACAG	GCATGTAAGA	6000
AATGATGATT	GATTGAGTAA	TAGGCATTGA	TGACCCCTGT	CCTCACTTTG	
TCCCCTTTCC	ACCCCTTAAT	TATATGTGAA	TTCTGGTCTT	GTCATTTCGA	6100
ATAAGGGGTT	TATCTTTCCT	ATTGTCTTCC	CCTCTGGGCA	CGGCACACTG	
GCTACTGGAG	TTAAGAGGAA	ATGCTTAGGA	CTCCCTGTGG	CTCCAGGGAG	6200
CACCAACAGA	GCAACTCAAC	CTAGTGTTAA	TCTGAGTGTT	TTCTCTGTGC	
TTCTGGATGC	CACATCACGC	TAAAAATGAA	GGACAAAGCT	TGGTCTTTCT	6300
CTTAGGGAGG	ATGAAACTGT	GAACCTCATT	TTTCAGTTCC	CAAGATGAAT	
TATGTTTCTC	ATTGCATCTG	TGTTCCACTA	CAGCTCCGCG	TGAGAAGTAC	6400
[exon 6: 6384..					
TGGCTACAAT	TTTTTATCCC	ATTGTTGGTG	GTGATTCTGT	TTGCTGTGGA	
CACAGGATTA	TTTATCTCAA	CTCAGCAGCA	GGTCACATTT	CTCTTGAAGA	6500
TTAAGAGAAC	CAGGAAAGGC	TTCAGACTTC	TGAACCCACA	TCCTAAGCCA	
A					
AACCCCAAAA	ACAACTGATA	TAATTACTCA	AGAAATATTT	GCAACATTAG	6600
..6568]					

FIGURE 1C

4/6

TTTTTTTCCA	GCATCAGCAA	TTGCTACTCA	ATTGTCAAAC	ACAGCTTGCA	
		C		G	
ATATACATAG	AAACGTCTGT	GCTCAAGGAT	TTATAGAAAT	GCTTCATTAA	6700
ACTGAGTGAA	ACTGGTTAAG	TGGCATGTAA	TAGTAAGTGC	TCAATTAACA	
	A				
TTGGTTGAAT	AAATGAGAGA	ATGAATAGAT	TCATTTATTA	GCATTTGTAA	6800
AAGAGATGTT	CAATTTCAAT	AAAATAAATA	TAAAACCATG	TAACAGAATG	
CTTCTGAGTA	TTCAAGGCTT	GCTAGTTTGT	TTGTTTGTTT	TCTACTAAAG	6900
GCAAGGACCA	TGAAGTTCTA	GATTGGAAAT	GTCTCTCTTT	GAATATTGCA	
AGTGCGATCT	AGGAATGAAA	AGACATAGGA	GGATGCCAGT	GAGGTGGATC	7000
ATTTTTATGC	TTCTTCTTCA	GCTTACTAAA	TATGAACTTT	CAGTTCTTGG	
CAGAATCAGG	GACAGTCTCA	AGACATAGGA	CTCTCAGGAT	GAAGTAGAGT	7100
CCAGGATTCC	TCTGTGATTG	TTTTGCCCCCT	CCCAAATTTA	TATCTTGAAC	
TTATGTCTTG	TATCTTTATA	CAGCACCTGA	ACCAAGCATT	TTGGAGAAAT	7200
TCCAGCTAAT	AATAATAACC	AAAACCTTCG	GCTCTGAAAA	CAGTCCAGGA	
CTGAATAAGA	TCTTGGGCAA	AAGAACTAGA	CAGTTTTGGT	TTATTTTCCC	7300
TTTCATTTTA	TGTCTTCATC	ATAGTCATTG	GAGGCTCATT	CTTCTTGTC	
TGGAGTAAAT	GGGATTAAAG	TT			7372

FIGURE 1D

POLYMORPHISMS IN THE CODING SEQUENCE OF FCER1A

ATGGCTCCTG CCATGGAATC CCCTACTCTA CTGTGTGTAG CCTTACTGTT
 CTTGCTCCA GATGGCGTGT TAGCAGTCCC TCAGAAACCT AAGGTCTCCT 100
 TGAACCTCC ATGGAATAGA ATATTTAAAG GAGAGAATGT GACTCTTACA
 TGTAATGGGA ACAATTTCTT TGAAGTCAGT TCCACCAAAT GGTTCCACAA 200
 TGGCAGCCTT TCAGAAGAGA CAAATTCAAG TTTGAATATT GTGAATGCCA
 AATTTGAAGA CAGTGGAGAA TACAAATGTC AGCACCAACA AGTTAATGAG 300
 G
 AGTGAACCTG TGTACCTGGA AGTCTTCAGT GACTGGCTGC TCCTTCAGGC
 A
 CTCTGCTGAG GTGGTGATGG AGGGCCAGCC CCTCTTCCTC AGGTGCCATG 400
 GTTGGAGGAA CTGGGATGTG TACAAGGTGA TCTATTATAA GGATGGTGAA
 GCTCTCAAGT ACTGGTATGA GAACCACAAC ATCTCCATTA CAAATGCCAC 500
 AGTTGAAGAC AGTGGAACCT ACTACTGTAC GGGCAAAGTG TGGCAGCTGG
 T
 ACTATGAGTC TGAGCCCCTC AACATTACTG TAATAAAAGC TCCGCGTGAG 600
 AAGTACTGGC TACAATTTTT TATCCCATTG TTGGTGGTGA TTCTGTTTGC
 TGTGGACACA GGATTATTTA TCTCAACTCA GCAGCAGGTC ACATTTCTCT 700
 TGAAGATTAA GAGAACCAGG AAAGGCTTCA GACTTCTGAA CCCACATCCT
 A
 AAGCCAAACC CCAAAAACAA CTGA 774

FIGURE 2

6/6
ISOFORMS OF THE FCER1A PROTEIN

MAPAMESPTL	LCVALLFFAP	DGVLAVPQKP	KVSLNPPWNR	IFKGENVTILT	
CNGNNFFEVS	STKWFFHNGSL	SEETNSSLNI	VNAKFEDSGE	YKCQHQQVNE	100
			R		
SEPVYLEVFS	DWLLLQASAE	VVMEGQPLFL	RCHGWRNWDV	YKVIYYKDGE	
N					
ALKYWYENHN	ISITNATVED	SGTYYCTGKV	WQLDYESEPL	NITVIKAPRE	200
		M			
KYWLQFFIPL	LVVILFAVDT	GLFISTQQQV	TFLKIKRTR	KGFRLNPHP	
				K	
KPNPKNN					257

6 OF 6
 ISOFORMS OF THE FCER1A GENE
 SHEET
 Docket No. MWH-0007US
 Express Mail No. EL59465093US
 Contact: Gisela Field
 203-786-3473

FIGURE 3